

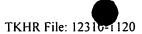
Serial No.: 10/006,158 Art Unit: 3738

Page 3

AMENDMENTS TO THE CLAIMS

Applicant has reproduced all of the claims of the application. Please amend the claims as follows, by deleting the matter struck through and adding the underlined matter:

(Currently amended) A blood vessel wall defining device for repairing an aneurysm 1. 1 2 comprising in combination, a percutaneously-insertable structural frame extending between a first end and a second 3 end and having an unexpanded diameter which is smaller than the diameter of said blood vessel 4 for said structural frame to be percutaneously placed into said blood vessel, said structural frame 5 being expandable to form a generally cylindrical structural skeleton having a slightly larger 6 diameter than said blood vessel to facilitate the securing of said structural skeleton in position in 7 said blood vessel; . 8 said structural frame including a plurality of longitudinal support rods; 9 a tubular sheath; 10 said support rods being attached to at the tubular sheath for at least a portion thereof; 11 a plurality of expandable ring stents longitudinally displaced from each other internally of 12 said tubular sheath for displacement from an intersecting artery or from an aneurysm to avoid 13 obstruction of blood flow or to avoid the application of excessive stress against the wall of the 14 vessel; 15 said ring stents having a smaller deployment diameter prior to insertion into a blood 16 vessel and an expanded diameter in the an uncoiled position; 17 said ring stents having ratchet means for locking in an expanded position internally 18 against the an inner surface of said sheath. 19



Serial No.: 10/006,158 Art Unit: 3738

Page 4

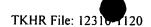
ì	2. (Currently amended) The device of claim 1 A blood vessel wall defining device for
2	repairing an aneurysm comprising in combination,
. 3	a percutaneously-insertable structural frame extending between a first end and a second
. 4	end and having an unexpanded diameter which is smaller than the diameter of said blood vessel
5	for said structural frame to be percutaneously placed into said blood vessel, said structural frame
6	being expandable to form a generally cylindrical structural skeleton having a slightly larger
7	diameter than said blood vessel to facilitate the securing of said structural skeleton in position in
8	said blood vessel;
9	said structural frame including a plurality of longitudinal support rods;
10	a tubular sheath:
÷ 11	said support rods being attached to the tubular sheath for at least a portion thereof;
, 12	a plurality of expandable ring stents longitudinally displaced from each other internally of
13	said tubular sheath;
14	said ring stents having a smaller deployment diameter prior to insertion into a blood
15	vessel and an expanded diameter in an uncoiled position;
16	said ring stents having ratchet means for locking in an expanded position internally
17	against an inner surface of said sheath,
18	wherein said tubular sheath extends less than the full length of said longitudinal support
19	rods, leaving a portion of said longitudinal support rods uncovered for the passage of blood
20	between the uncovered portion of said longitudinal support rods.

TKHR File: 12310-1120

Serial No.: 10/006,158 Art Unit: 3738

Page 5

ı	3. (Currently amended) the device of claim 1 A blood vessel wall defining device for
2	repairing an aneurysm comprising in combination,
- 3	a percutaneously-insertable structural frame extending between a first end and a second
, 4	end and having an unexpanded diameter which is smaller than the diameter of said blood vessel
5	for said structural frame to be percutaneously placed into said blood vessel, said structural frame
6	being expandable to form a generally cylindrical structural skeleton having a slightly larger
7	diameter than said blood vessel to facilitate the securing of said structural skeleton in position in
8	said blood vessel;
9	said structural frame including a plurality of longitudinal support rods;
10	a tubular sheath;
.11	said support rods being attached to the tubular sheath for at least a portion thereof;
. 12	a plurality of expandable ring stents longitudinally displaced from each other internally of
13	said tubular sheath;
14	said ring stents having a smaller deployment diameter prior to insertion into a blood
15	vessel and an expanded diameter in an uncoiled position;
16	said ring stents having ratchet means for locking in an expanded position internally
17	against an inner surface of said sheath,
18	wherein said tubular sheath forms a passage therethrough between said first and second
19	ends that provides fluid access between the rods so that branches off the blood vessel can be
20	supplied with blood.



Serial No.: 10/006,158 Art Unit: 3738

Page 6

1 4. (Previously added) The device of claim 1, wherein said ring stents are expandable to

2 selected progressively uncoiled positions so that the structural frame can be expanded to different

· 3 breadths along its length.

1 5. (Previously added) The device of claim 1, wherein said longitudinal support rods are

2 flexible and are able to conform to the shape of the vessel between said ring stents.

1 6. (Currently amended) The device of claim 1, wherein said sheath-structural frame

2 surrounds said structural frame sheath, and said ring stents engage are biased against said

3 structural frame.

2

2

7. (Previously added) The device of claim 1, wherein said ring stents are each arranged in a

coil and are expandable for urging the structural frame toward engagement with the interior

3 surface of an irregularly shaped vessel.

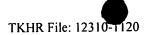
1 8. (Currently amended) A blood vessel wall defining device for repairing an aneurysm

comprising in combination:

a percutaneously-insertable structural frame including a plurality of elongated

4 flexible support members arranged approximately parallel to one another and formed in a tubular

5 array for insertion into a vessel of the human body,



6

7

. 8

. 9

10

11

12

13

14

15

16

.17

18

1

2

Serial No.: 10/006,158 Art Unit: 3738

Page 7

a tubular open ended sheath extending about affixed to said elongated flexible support members of said frame for collapsibly supporting said elongated flexible support members in a tubular configuration between an unexpanded diameter and expanded diameters,

a plurality of ring stents positioned at spaced intervals along the lengths of and within said tubular array of elongated flexible support members, and arranged to urge said elongated flexible support members from their unexpanded diameter when said device is to pass through a vessel to their expanded diameter when said device is to be expanded into engagement with a vessel,

said elongated flexible support members being devoid of said sheath at a position along the length of said elongated flexible support members whereby blood may pass between the elongated flexible support members, and

said ring stents configured to expand in response to the inflation of a balloon catheter to various diameters for causing said device to engage an irregularly shaped vessel .

- 9. (Currently amended) A blood vessel wall defining device for repairing an aneurysm comprising in combination:
- a plurality of elongated flexible support members arranged approximately parallel to one another and formed in a tubular array for insertion into a blood vessel of the human body,

a plurality of ring stents positioned at spaced intervals along the lengths of and
within said tubular array of elongated flexible support members, and arranged to urge said
elongated flexible support members from their unexpanded diameter when said device is to pass

TKHR File: 12310-

10

.11

12

13

14

15

Serial No.: 10/006,158

Art Unit: 3738

Page 8

through a vessel to their expanded diameter when said device is to be expanded into engagement 8 with a vessel, 9

said ring stents configured to expand and said clongated flexible support members are configured so that the elongated flexible support members are expanded by the balloon-expanded ring stents in response to the inflation of a balloon catheter to various diameters for causing said device to engage an irregularly shaped vessel, and

said elongated flexible support members configured to support the blood vessel at positions between said ring stents.